1. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

   Perpendicular to $5x + 4y = 5$ and passing through the point $(-4, 8)$.

   A. $m \in [1.13, 1.31]$ $b \in [10.92, 11.39]$

   B. $m \in [0.28, 0.91]$ $b \in [-11.74, -10.48]$

   C. $m \in [0.28, 0.91]$ $b \in [10.92, 11.39]$

   D. $m \in [-0.85, -0.52]$ $b \in [4.04, 4.84]$

   E. $m \in [0.28, 0.91]$ $b \in [11.61, 12.83]$

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2. Solve the equation below. Then, choose the interval that contains the solution.

$$-7(-10x - 16) = -19(-14x - 15)$$

   A. $x \in [-3.12, -1.99]$

   B. $x \in [1.49, 2.62]$

   C. $x \in [-1.19, -0.91]$

   D. $x \in [-0.89, -0.78]$

   E. There are no real solutions.

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3. Solve the equation below. Then, choose the interval that contains the solution.

$$-19(-8x + 3) = -11(-2x - 16)$$

   A. $x \in [-0.95, -0.73]$

   B. $x \in [1.55, 1.82]$

   C. $x \in [0.83, 1]$

   D. $x \in [-0.73, -0.55]$

   E. There are no real solutions.

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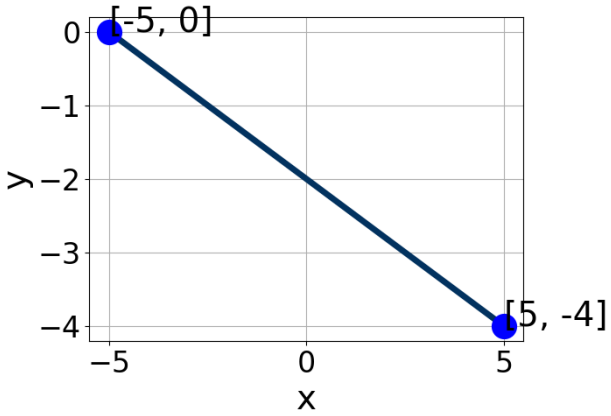
4. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.



A. $A \in [-3.1, -0.3]$, $B \in [-7.1, -4.2]$, and $C \in [8.3, 10.6]$

B. $A \in [-0.4, 1.1]$, $B \in [-2.3, -0.3]$, and $C \in [0, 4.5]$

C. $A \in [1.6, 4.5]$, $B \in [3.2, 6.5]$, and $C \in [-10.7, -9.3]$

D. $A \in [1.6, 4.5]$, $B \in [-7.1, -4.2]$, and $C \in [8.3, 10.6]$

E. $A \in [-0.4, 1.1]$, $B \in [-0.2, 1.1]$, and $C \in [-2.5, 1.1]$

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5. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{8x+5}{8} - \frac{-9x+6}{5} = \frac{5x+3}{2}$$

A. $x \in [11.8, 13.9]$

B. $x \in [-2.2, 0]$

C. $x \in [6.2, 7.8]$

D. $x \in [-0.4, 2]$

E. There are no real solutions.

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6. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $3x - 5y = 8$ and passing through the point $(4, 4)$.

A. $m \in [0, 1.5]$ $b \in [-0.5, 1.34]$

B. $m \in [1.5, 2.2]$ $b \in [1.4, 2.05]$

C. $m \in [0, 1.5]$ $b \in [1.4, 2.05]$

D. $m \in [-0.9, -0.2]$ $b \in [6.21, 7.56]$

E. $m \in [0, 1.5]$ $b \in [-2.12, -0.92]$

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7. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{3x-9}{2} - \frac{6x+7}{6} = \frac{-8x+3}{7}$$

A. $x \in [1.4, 3.3]$

B. $x \in [0.6, 1.3]$

C. $x \in [2.9, 4.4]$

D. $x \in [11.3, 12.6]$

E. There are no real solutions.

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8. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(8, 3) \text{ and } (-2, -4)$$

A. $m \in [-0.48, 0.74]$ $b \in [-2.85, -2.4]$

B. $m \in [-0.48, 0.74]$ $b \in [-5.02, -4.7]$

C. $m \in [-0.48, 0.74]$ $b \in [2.56, 3.03]$

D. $m \in [-0.48, 0.74]$ $b \in [-2, -1.98]$

E. $m \in [-0.94, 0.14]$ $b \in [-5.81, -5.06]$

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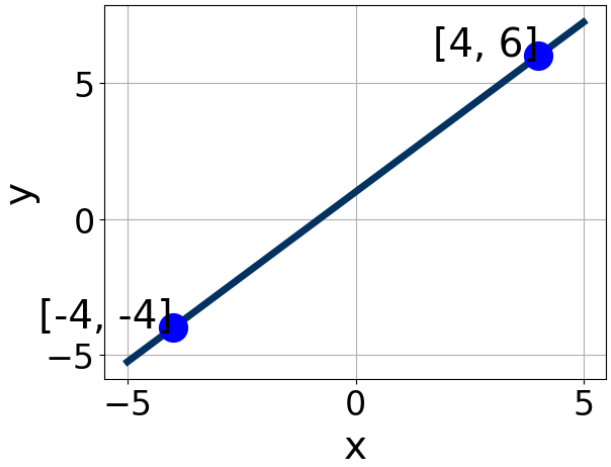
9. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.



A. $A \in [-3.25, 3.75]$, $B \in [-0.28, 2.73]$, and $C \in [0.7, 2.5]$

B. $A \in [2, 9]$, $B \in [-4.28, -2.48]$, and $C \in [-6.4, -1.6]$

C. $A \in [-7, -3]$, $B \in [2.35, 4.17]$, and $C \in [3.7, 5.1]$

D. $A \in [-3.25, 3.75]$, $B \in [-2.3, -0.22]$, and $C \in [-3.9, 0.4]$

E. $A \in [2, 9]$, $B \in [2.35, 4.17]$, and $C \in [3.7, 5.1]$

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10. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(-5, 6) \text{ and } (9, 3)$$

A. $m \in [-1.7, 0.14]$ $b \in [-5.04, -4.83]$

B. $m \in [0.16, 3.02]$ $b \in [-0.09, 3.74]$

C. $m \in [-1.7, 0.14]$ $b \in [2.8, 6.12]$

D. $m \in [-1.7, 0.14]$ $b \in [10.9, 11.73]$

E. $m \in [-1.7, 0.14]$ $b \in [-6.78, -5.15]$
